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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,217	10/23/2001	Elvino S. Sousa	450100-03559	1149

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EXAMINER	
MEEK, JACOB M	

ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

CT

Office Action Summary	Application No.	Applicant(s)	
	10/017,217	SOUSA ET AL.	
	Examiner	Art Unit	
	Jacob Meek	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,17 and 38* is/are rejected.

7)☒ Claim(s) *2 - 16, 18 - 37, 39, 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of reference to circuits 21, 31, etc. A statement regarding the unique aspects of this circuit would be more appropriate. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 17 and 40 are objected to because of the following informalities:

Claim 17, (page 73, line 15) signal should read signals.

Claim 40, (page 40, line 11) fourth should read forth.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ward et al (US Patent 4,736,390).

With regard to claim 1, Ward teaches a spread spectrum receiver compromising a local oscillator (see Figure 4, 62) for outputting a local signal with a predetermined frequency (see column 3, lines 13 – 16 where this is interpreted as equivalent), a local spreading code means for generating a local spreading code according to the spreading code of the received signal (see figure 4, 61 and column 3, lines 18 – 20 where this is interpreted as equivalent),

and a direct conversion circuit for generating a local reference signal based on local oscillator and local spreading code (see figure 4, 45, 46 and column 6, lines 50 - 52) generating two signal having a phase difference based on the received signal and the reference local signal (see figure 4, 44, 47 outputs) and despreading the based on two signals having a phase difference (see figure 4, 52,53 and column 6, lines 55 – 60).

4. Claims 17, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Rajan (US Patent 4,538,281).

With regard to claim 17, Ward teaches a spread spectrum receiver compromising a local oscillator (see Figure 3, 22) for outputting a local signal with a predetermined frequency (see column 4, lines 49 – 53 where this is interpreted as equivalent), a local spreading code means for generating a local spreading code according to the spreading code of the received signal (see figure 3, 18 and column 4, lines 45 – 47 where this is interpreted as equivalent), and a direct conversion circuit for generating a local reference signal based on local oscillator and local spreading code (see figure 3, 20 and column 4, lines 53 - 57) from the local spreading tracking means (see figure 3, 30, 32,18 and column 3, lines 33 - 37) generating two signals having a phase difference based on the received signal and the reference local signal (see figure 3, 16 and column 4, lines 58 – 67 where this mixer is interpreted as a balanced mixer providing I & Q outputs) and despreading based on two signals having a phase difference (see figure 3, 28, 26 and column 4, lines 61 – 65).

With regard to claim 38, Ward teaches a spread spectrum receiver compromising a local oscillator (see Figure 3, 22) for outputting a local signal with a predetermined frequency (see column 4, lines 49 – 53 where this is interpreted as equivalent), a local spreading code means for generating a local spreading code through a process, including digital processing (see column 7, lines 38 – 50 where this is interpreted as equivalent) of synchronization and

tracking based on the received signal (see figure 3, 18 and column 4, lines 45 – 47 where this is interpreted as equivalent), and a direct conversion circuit for generating a local reference signal based on local oscillator and local spreading code (see figure 3, 20 and column 4, lines 53 - 57) from the local spreading tracking means (see figure 3, 30, 32,18 and column 3, lines 33 - 37) generating two signals having a phase difference based on the received signal and the reference local signal (see figure 3, 16 and column 4, lines 58 – 67 where this mixer is interpreted as a balanced mixer providing I & Q outputs) and despreading based on two signals having a phase difference (see figure 3, 28, 26 and column 4, lines 61 – 65).

Allowable Subject Matter

5. Claims 2 – 16, 18 – 37, 39, 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Cited Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kohno et al(US Patent 6,823,181) teaches a SW defined radio that supports high bandwidths; Teranishi et al (US Patent 4,888,788), Hashimoto et al (US Patent 5,132,985), Ghapurey (US Patent 6,445,726) all teach variations of down conversion using PN code to modulate local oscillator; Sato (US Patent 5,956,328) teaches the shifting of received signal prior to dispreading at the baseband level. NPL references show general references associated with spread spectrum receivers.

Other Cited Prior Art

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM

JAY K. PATEL
SUPERVISORY PATENT EXAMINER